

## ABSTRACT

An apparatus kit for demonstrating Archimedes' principle comprises a tub for holding fluid, wherein the tub has sides, and further has an overflow spout, such that when a fluid level reaches the overflow spout, all additional fluid added to the tub will flow out of the overflow spout; and a stable boat sized to float in the tub without touching the sides of the tub. The kit may further comprise a balance beam which can balance on a top edge of the tub sides, wherein the balance beam comprises a first end and a second end, wherein the first end has a first means for attaching a counter weight, and the second end has a second means for attaching a sample weight such that the sample weight attached to the second end will be submerged in the fluid in the tub when the balance beam is balancing on the top edge of the tub sides. There is also provided a method for using this kit to demonstrate Archimedes' principle both for the buoyancy of a floating body, and the buoyancy for objects that do not float.